PROGRAM

```c
//shared1.c
#include <sys/types.h>
#include <sys/ipc.h>
#include <sys/shm.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#define SHMSZ 1024
int main() {
    int shmid;
    key_t key;
    char *shm, *s;
    char message[] = "Hello, World!";
    key = 5678;
    if ((shmid = shmget(key, SHMSZ, IPC_CREAT
| 0666)) < 0) {
        perror("shmget");
        exit(1);
    }
    if ((shm = shmat(shmid, NULL, 0)) == (char
*) -1) {
        perror("shmat");
        exit(1);
    }
    strncpy(shm, message, SHMSZ);
    exit(0);
}
```
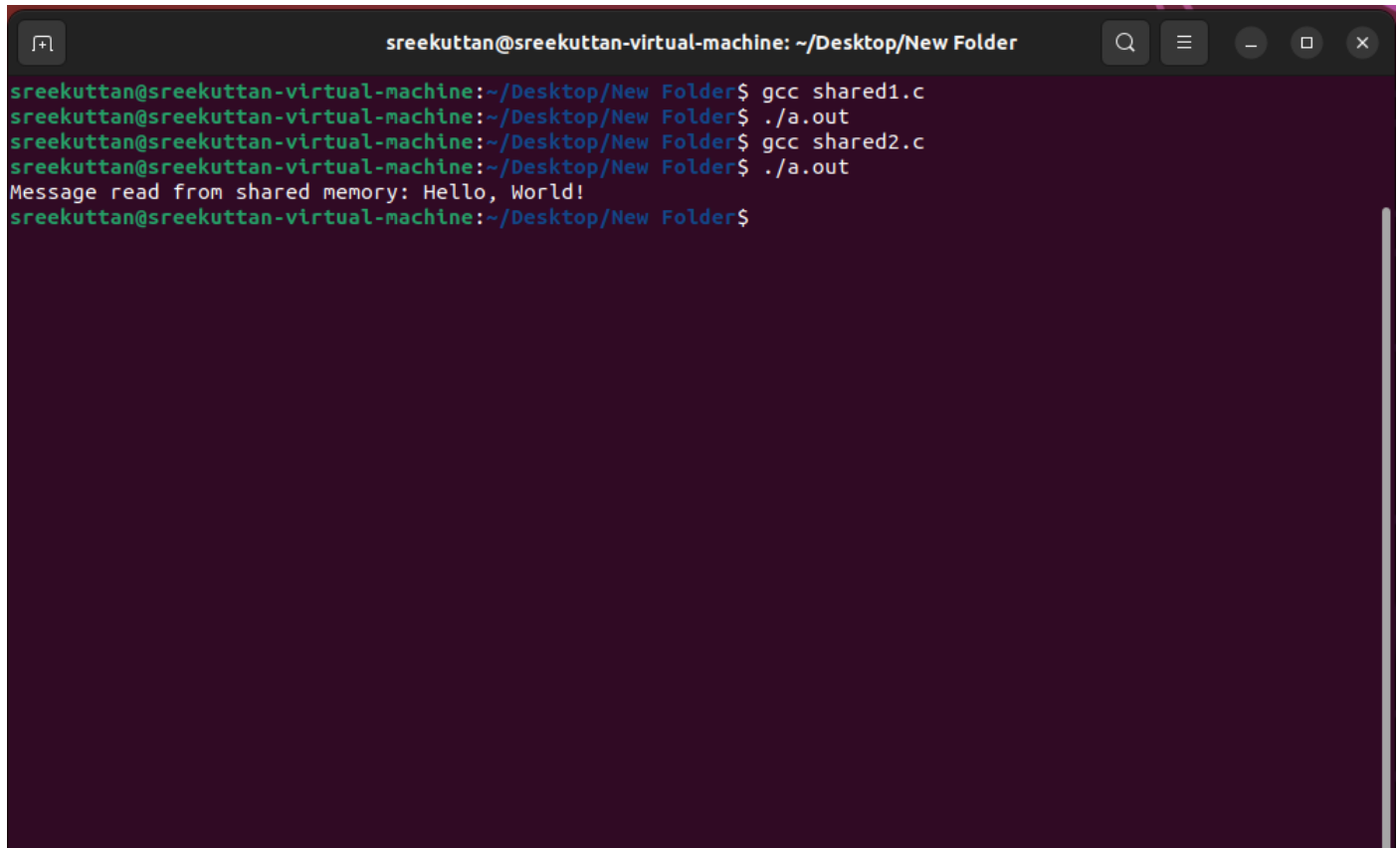
```c
//shared2.c
#include <sys/ipc.h>
#include <sys/shm.h>
#include <stdio.h>
#include <stdlib.h>
#define SHMSZ 1024
int main() {
    int shmid;
    key_t key;
    char *shm, *s;
    key = 5678;
    if ((shmid = shmget(key, SHMSZ, 0666)) <
0) {
        perror("shmget");
        exit(1);
    }
    if ((shm = shmat(shmid, NULL, 0)) == (char
*) -1) {
        perror("shmat");
        exit(1);
    }

    printf("Message read from shared memory:
%s\n", shm);
    exit(0);
}
```

OUTPUT


```
sreekuttan@sreekuttan-virtual-machine:~/Desktop/New Folder$ gcc shared1.c
sreekuttan@sreekuttan-virtual-machine:~/Desktop/New Folder$ ./a.out
sreekuttan@sreekuttan-virtual-machine:~/Desktop/New Folder$ gcc shared2.c
sreekuttan@sreekuttan-virtual-machine:~/Desktop/New Folder$ ./a.out
Message read from shared memory: Hello, World!
sreekuttan@sreekuttan-virtual-machine:~/Desktop/New Folder$
```

```c
//pipe
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<sys/wait.h>
int main() {
    int fd[2], child;
    char a[10];
    printf("\nEnter the string to enter into the pipe: ");
    scanf("%s", a);
    pipe(fd);
    child = fork();
    if (!child) {
        close(fd[0]);
        write(fd[1], a, 5);
    } else {
        close(fd[1]);
        read(fd[0], a, 5);
        printf("\nThe string retrieved from the pipe is %s\n", a);
    }
    return 0;
}
```